UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/644,136	08/22/2000	Ioana M. Danciu	07844-423001/P387	9363

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DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

    A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 January 2004</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-18</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other: .

DETAILED ACTION

1.   This action is responsive to communications: Request for Reconsideration, filed

on 1/26/2004. This action is non-final.

2.   Claims 1-18 are pending in the case. Claims 1, 8-9 and 18 are independent

claims.

3.   The title of this application is "Selecting Rendering Intents", as filed originally.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5.   Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claims 4 and 5 are rejected as failing to define the invention in the manner

required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or

operational language. The structure which goes to make up the device must be clearly

and positively specified. The structure must be organized and correlated in such a

manner as to present a complete operative device. The claim(s) must be in one

sentence form only. Note the format of the claims in the patent(s) cited.

The examiner does not know the boundary of "all known" rendering intents.

Claim Rejections - 35 USC § 102

6.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7.   Claims 1-2, 6, 8-10, 12-13 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Usami (5,748,342).

As per claims 1 and 8, Usami discloses a computer implemented method or computer program product for selecting a rendering intent, the method comprising:

receiving a source color image having colors within a source color gamut (Figure 20 original);

receiving a plurality of rendering intents, wherein each rendering intent defines a mapping of colors from the source color gamut to a destination color gamut (Figure 1B 10 "a hard disk, which is used to store color reproduction range data of the printers 7 to 9 and the monitor, a profile including programs including a color space compression algorithm", column 3, line 53-56, where the profile including programs is the rendering intent);

generating a plurality of rendered images by rendering the source image using the plurality of rendering intents (Figure 20 the three preview images were generated);

providing a plurality of contrast modes (Figure 20 where the three preview images are displayed for comparison, therefore are contrast modes);

receiving input selecting a contrast mode ("a preview function can be provided, which allows the user to form an image having a desired color appearance", column 8, line 65-67");

simultaneously previewing a plurality of images according to the selected

contrast mode (Figure 20 where the three preview images are simultaneously

displayed); and

selecting a rendering intent by receiving from a user a selected image from the

plurality of images simultaneously previewed images according to the selected contrast

mode (Figure 1B 12 "Reference numeral 12 denotes an operating unit, which is used by

the user to select a desired process", column 3, line 64-65).

8.   As per dependent claim 2, Usami demonstrated all the elements as applied to

the rejection of independent claim 1, supra, and further discloses the rendered images

are contrasted by simultaneously previewing them as a plurality of rendered images

(Figure 20).

9.   As per dependent claim 6, Usami demonstrated all the elements as applied to

the rejection of independent claim 1, supra, and further discloses simultaneously

previewing a plurality of rendered image comprises simultaneously displaying them on a

monitor (Figure 20).

10.   As per claims 9 and 18, Usami discloses a computer implemented method or

computer program product for selecting a rendering intent, the method comprising:

receiving a source color image having colors within a source color gamut (Figure

20 original);

receiving a plurality of rendering intents, wherein each rendering intent defines a

mapping of colors from the source color gamut to a destination color gamut (Figure 1B

10 "a hard disk, which is used to store color reproduction range data of the printers 7 to

9 and the monitor, a **profile including programs** including a color space compression

algorithm", column 3, line 53-56, wherein the profile including programs is the rendering

intent);

generating a plurality of rendered images by rendering the received image

according to the plurality of rendering intents (Figure 20 the three preview images were

generated);

simultaneously previewing a plurality of difference images, wherein each

difference image is generated from one of plurality of rendered images and a reference

image (Figure 20 where the three preview images are simultaneously displayed and the

algorithm generated images are the difference images, the original image is reference

image); and

selecting a rendering intent by receiving from a user a selected image from the

plurality of simultaneously previewed difference (Figure 1B 12 "Reference numeral 12

denotes an operating unit, which is used by the user to select a desired process",

column 3, line 64-65).

11.   As per dependent claim 10, Usami demonstrated all the elements as applied to

the rejection of independent claim 9, supra, and further discloses simultaneously

previewing a plurality of rendered image comprises simultaneously displaying them on a

monitor (Figure 20).

12.   As per claim 12, Usami demonstrated all the elements as applied to the rejection

of independent claim 9, supra, and further discloses the reference image is another

rendered image (Figure 20 Preview Image No Color Space Compression).

13.   As per claim 13, Usami demonstrated all the elements as applied to the rejection

of independent claim 9, supra, and further discloses the reference image is the source

color image (Figure 20 Original).

Claim Rejections - 35 USC § 103

14.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usami as

applied to claim 1 above, and further in view of Inoue et al. (5,844,542).

15.   As per dependent claim 3, Usami demonstrated all the elements as applied to

the rejection of independent claim 1, supra.

Usami discloses a method of selecting a rendering intent. It is noted that Usami

does not explicitly disclose "the rendered images are contrasted by simultaneously

previewing them as a plurality of rendered differences", however, this is known in the art

as taught by Inoue et al., hereinafter Inoue. Inoue discloses an image processing

method in which "image adjustment on the original image data based on an image

adjustment level deviated from that of the first image adjustment by a given level

difference ...", column 2, line 58- column 3, line 3).

Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Inoue into Usami because Usami

discloses a method of selecting a rendering intent and Inoue disclose the image

difference can be simultaneously display in order to make color adjustment more

efficiently.

16.   Claims 4-5, 7, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Usami as applied to claim 1 above.

As per dependent claim 4, Usami demonstrated all the elements as applied to
the rejection of independent claim 1, supra, and further discloses the plurality of
received rendering intents comprises all known rendering intents (Figure 1B 10 "a hard
disk, which is used to store color reproduction range data of the printers 7 to 9 and the
monitor, a profile including programs including a color space compression algorithm",
column 3, line 53-56, where the profile including programs is the rendering intent.
Although Usami does not explicitly disclose the rendering intents include all known
rendering intents, however, it would have been obvious to one of ordinary skill in the art
to include all known rendering intents in order to consider all rendering methods in
transformation).

17.   As per dependent claim 5, Usami demonstrated all the elements as applied to
the rejection of independent claim 1, supra, and further discloses the plurality of
received rendering intents comprises a subset of all known rendering intents (Figure 1B
10 "a hard disk, which is used to store color reproduction range data of the printers 7 to
9 and the monitor, a profile including programs including a color space compression
algorithm", column 3, line 53-56, where the profile including programs is the rendering
intent. Although Usami does not explicitly disclose the rendering intents include all
known subset of rendering intents, however, it would have been obvious to one of
ordinary skill in the art to include all known subset of rendering intents in order to
consider all rendering methods in transformation).

18.   As per claims 7 and 11, Usami demonstrated all the elements as applied to the

rejection of independent claims 1 and 9, supra, respectively.

As for simultaneously previewing a plurality of rendered images comprises

printing then on a single sheet of paper, since Usami discloses a plurality of images can

be simultaneously displayed on a monitor and since it is notoriously well in the art that

images on a monitor can be printed on a single page, it would have been obvious to one

of ordinary skill in the art at the time the invention was made to incorporate the method

in to Usami in order to print out the comparison of images.

19.   Claims 14 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over

Usami as applied to claim 9 above, and further in view of Urbano et al. (6,004,270).

As per dependent claim 14, Usami demonstrated all the elements as applied to

the rejection of independent claim 9, supra.

Usami discloses a method of selecting a rendering intent. It is noted that Usami

does not explicitly disclose a difference image is obtained by subtracting the reference

image from a rendered image, however, this is known in the art as taught by Urbano et

al., hereinafter Urbano. Urbano discloses an image processing method in which the

difference image is by performing subtraction of two images (column 1, line 31-32).

Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Urbano into Usami because Usami

discloses a method for selecting rendered image and Urbano discloses the rendered

image can be processed to display difference image in order to improve alignment

process.

20.   As per dependent claim 15, Usami and Urbano demonstrated all the elements as
applied to the rejection of independent claim 9, supra, and Urbano further discloses a
difference image is obtained by subtracting the reference image from a rendered image
(col. 1, line 31-32).

Thus, it would have been obvious to one of ordinary skill in the art at the time the
invention was made to incorporate the teaching of Urbano into Usami because Usami
discloses a method for selecting rendered image and Urbano discloses the rendered
image can be processed to display difference image in order to improve alignment
process.

As for a difference image is obtained by calculating the least squares difference
between a rendered image and the reference image, since least squares difference is a
notoriously well known method in calculating difference between two image, it would
have been obvious to one of skill in the art to include obtaining a difference image by
calculating the least squares difference between a rendered image in order to
approximate color changes to find the best optimization.

21.   Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Usami and Urbano et al. (US 6,004,270), and further in view of Kamiyama (US
2002/0028994).

As per dependent claim 16, Usami and Urbano disclose a difference image is
obtained by subtracting the reference image from a rendered image (col. 1, ll. 31-32).

Thus, it would have been obvious to one of ordinary skill in the art at the time the
invention was made to incorporate the teaching of Urbano into Usami because Usami

discloses a method for selecting rendered image and Urbano discloses the rendered

image can be processed to display difference image in order to improve alignment

process.

It is further noted that Usami and Urbano combined do not explicitly disclose a

difference image is obtained by representing the differences between a rendered image

and the reference image as a topographical map, however, this is known in the art as

taught by Kamiyama. Kamiyama discloses a method of representing difference image in

the form of topological contouring (Figure 7 "After the production, the image data of

tomographic image TM_S based on the difference signal S are superposed on those of

tomographic image TM_2 based on the echo signal 2. In this superposition, each pixel of

one topographic image TM_S is added in a pixel value (intensity) to that of each pixel the

other tomographic image TM_2", [0118]).

Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Kamiyama into Usami and Urbano

because Usami and Urbano disclose a method of producing difference image and

Kamiyama disclose the difference image can be topographical image in order to provide

better contrast.

22.   As per dependent claim 17, Kamiyama further disclose the topological image can

color coded ("For the tomographic image TM_S based on the difference signal S, the

pixels are color-coded in, for example, red or blue, being produced as a color-mapped

image" [0118], where the tomographic image is a topographic image).

Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Kamiyama into Usami and Urbano

because Usami and Urbano disclose a method of producing difference image and

Kamiyama disclose the difference image can be topographical image in order to provide

better contrast.

Response to Arguments

23. Applicant's arguments with respect to claims 1-18 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

24.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Inquiries

25.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Ryan Yang** whose telephone number is **(703) 308-**

6133.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 305-47000377.

Ryan Yang
February 15, 2004